

2005

King County Department of Development and Environmental Services Sustainable Development Staff Training

The 2005 training series provides resources and tools for the DDES Green Team in order for them to effectively offer assistance to their customers on sustainable development topics including:

- Built Green, LEED and Construction Works Programs;
- Low Impact Development construction techniques and dedicated funds to support LID; and
- Cost Benefit Analysis of Green Building

Woven through out the trainings will be information on alternative energy systems such as solar, wind and geothermal applications; resource efficient framing; recycled materials and rain water collection systems.

While the training is targeted for the DDES Green Team, other DDES staff members are welcome to attend, if approved by their supervisor.

Training at a Glance

Session Topic	Date	Time/Location	Instructor
1. Introduction to King County's Green Building Program: <ul style="list-style-type: none">• Built Green™• LEED™• Construction Works	October 12, 2005	1:00 PM – 2:30 PM Room: DDES Hearing Room	Katie Spataro, King County DNRP Kinley Deller, King County DNRP
2. Eco-Charrette for a School Project	October 19, 2005	1:00 PM – 2:30 PM Room: DDES Hearing Room	Teresa Burrelsman, Paladino & Co
3. Eco-Charrette for Residential development project	October 26, 2005	1:00 PM – 2:30 PM Room: DDES Hearing Room	Mark Huppert, Catapult Community Developers
4. SWDM Appendix C & Soils Standards Training	November 2, 2005	1:00 PM – 2:30 PM Room: DDES Hearing Room	Steve Foley, King County DNRP
5. Field Trip to green residential development projects in King County	November 9, 2005	9 AM – 1 PM Various Locations	RSVP to cynthia.moffitt@metrokc.gov
6. Brown Bag: Cost Benefit Analysis of Green Building	November 16, 2005	Noon – 1 PM DDES Room B-35 (Technical Screening Room)	Mark Huppert, Catapult Community Developers

For more information please contact:

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1 Introduction to King County's Green Building Program

October 12, 2005

1:00pm – 2:30pm

DDES Hearing Room

King County's Green Building Program provides education and technical assistance to builders and residents to increase the application of environmentally-sound practices for residential and commercial development within the context of recognized green rating systems:

- Built Green™ for single and multifamily residential and remodeling projects
- LEED™ for commercial projects and multifamily construction over 4 stories
- Construction, Demolition and Landclearing Recycling Assistance for residential and commercial contractors



Built Green™ Idea Home at Issaquah Highlands

In this training participants will receive a basic overview of each program, learn how projects become certified, and take back resources and tools for providing green building assistance to DDES permit customers. Case studies of certified projects will highlight the successes and challenges of sustainable development in our region.

King County Regional Communications and Emergency Coordination Center, LEED certified



Presenters:

Katie Spataro, King County Department of Natural Resources and Parks

Katie provides assistance to the public and private sectors on sustainable development practices through the County's green building program. Katie's background in construction engineering and management led her naturally into the practice of green building principals. She holds a Sustainable Building Advisor certificate, a certificate in permaculture design, and is a LEED™ 2.0 accredited professional.

Kinley Deller, King County Department of Natural Resources and Parks

Kinley Deller is a waste reduction specialist for the County's Green Building Program. He provides technical assistance to commercial and residential contractors and capital project managers on CDL debris minimization and recycling practices. One approach to reducing CDL debris which Kinley has been actively promoting is the practice of deconstruction - taking buildings apart in such a way as to maintain the highest possible value of the building components.

2 Eco-Charrette for a School Project

October 19, 2005

1:00pm – 2:30pm

DDES Hearing Room

Eco-charrettes establish a path to success for the project design team in achieving sustainable development goals. An eco-charrette is a highly interactive event that generates ideas and builds consensus from a diverse audience, including traditional design team members, as well as contractors, user groups, consultants, operations staff and others. For many in the building industry, understanding performance benefits, setting design targets, and identifying critical tasks for sustainable building are new steps. Shaping this process is the single most critical aspect of developing a green building approach. The presenter will draw from her experience using eco-charrettes as a design tool on numerous green building and LEED projects.

In this training, attendees will participate in a mock eco-charrette to understand how the process works. We will begin with a member of the Paladino team introducing a local school project, including program elements, climatic considerations and an owner profile -- all key considerations a team should have prior to conducting a charrette. Then the audience will participate in a mock brainstorming session, to explore green building opportunities in energy, water, materials, etc. Following the brainstorming session, the group will then learn how to help turn the list of ideas and strategies into a "road map" for the team to follow for the rest of design and construction. The team will finish by reviewing critical next steps that teams should implement after an eco-charrette to achieve an executed green building project.



Presenter:

Teresa Burrelsman, Paladino & Company

Teresa Burrelsman is a project consultant with Paladino & Company, an internationally recognized green building consulting firm. Utilizing her 12 years experience in architecture, design, project management, and green building, she provides technical and conceptual design support to teams in prioritizing, selecting and implementing green building strategies. Her specialty areas include daylighting and energy-efficiency, green materials and specifications, and project management tools for green building. Teresa also serves on Paladino's technical consulting team to the U.S. Green Building Council, where she conducts LEED Application reviews and consults to the Retail Development Committee on the creation of the LEED Application Guide for Retail. Teresa has written and spoken extensively on a range of green building issues across the country.

3 Eco-Charrette for a Residential Development Project

October 26, 2005

1:00pm – 2:30pm

DDES Hearing Room

An eco-charrette is a carefully orchestrated meeting in which all the participants in a building design project set sustainable development goals and develop strategies for achieving those goals through integrated design, particularly as it relates to occupant health, building performance and natural resource utilization. Eco-charrettes are becoming a common element in the design process of high performance buildings.

In this session, attendees will participate in an eco-charrette for an infill, residential subdivision, facilitated by the project developer and architect. Using collaboration techniques, we will create a set of guiding principles for the design given the team's individual and collective values. We will then examine the orientation of the buildings on the site and learn how to identify and preserve key assets when laying out vehicular access and lots. We will explore the design opportunities of the homes themselves, considering the use of energy and material flows. The team will wrap up by creating an action plan for the designers to use as a roadmap for the project design.



Presenter:

Mark Huppert, Principal, Catapult Community Developers

Mr. Huppert works on both the practical application of sustainable development as well as consulting on larger policy issues of promoting sustainable commerce. The company often blends private and institutional sources of capital with public funds and tax incentives to maximize its projects' triple bottom line. Through its partnerships with a number of Puget Sound cities, Catapult is stimulating emerging economies within aging suburban downtowns. Mr. Huppert is currently overseeing the investment of \$50 Million in privately financed, mixed-use projects that employ both the LEED™ and Built Green™ rating systems as well as local hiring preference. All of these buildings are focused on the integration of natural features and systems with the urban built environment. Mark's recent affiliations include: Board of Directors, Cascadia Chapter of the U.S. Green Building Council; Advisory Board, University of Washington Forum on Conservation and Urban Sustainability. He holds a B.S. in Mechanical Engineering from UCLA and a M.B.A. and a M.S. in Construction Management from University of Washington.

4 Surface Water Design Manual Appendix C & Soils Standards Training

November 2, 2005

1:00pm – 2:30pm

DDES Hearing Room

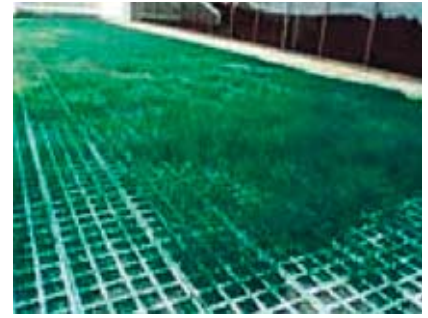


This training session will cover the flow control BMP requirements as outlined in the 2005 King County Surface Water Design Manual.

The BMPs are strategies for builders and developers to accomplish Low Impact Development (LID) techniques which include reducing impervious surface, onsite stormwater dispersion and infiltration, and using permeable pavement, rain gardens, green roofs and rainwater harvesting to help mimic and restore a site's natural hydraulic function.

These BMPs may be used to a greater extent than what is currently required to create innovative LID projects. Increased use of these BMPs will reduce stormwater impacts from development projects and allow a reduction in the size or elimination of conventional stormwater facilities.

Staff from the Grading Section will cover the new soil quality requirement in Title 16. This new code requires that the soil moisture-holding capacity be maintained by leaving forest soil in place, reusing stockpiled topsoil or by soil amendment with compost.



Presenter:

Steve Foley, King County Department of Natural Resource and Parks

Steve Foley is a Senior Engineer with the Water and Land Resources Division Stormwater Services Section. He has worked extensively in the public and private sector, including 13 years with King County. Steve has been involved in the development of LID strategies, the review of LID projects, the development of the DOE and King County Surface Water Design Manuals and the LID Manual for Puget Sound.

5 Field Trip to BUILT GREEN™ Residential Development Projects in King County

November 9, 2005

9:00am – 1:00pm

Note: Bus departs outside the DDES office promptly at 9am. RSVP to Cynthia Moffitt at [Cynthia.moffitt@metrokc.gov](mailto:cynthia.moffitt@metrokc.gov) is required to secure space on bus. Box lunches provided.

Participants on the field trip will have the opportunity to tour three of the most leading-edge Built Green™ development projects throughout Seattle and King County:



Shamrock Heights

CamWest's current development is a 30-acre site east of Renton with 118 detached single-family homes. The

project includes extensive low impact development design such as enhancement of the existing wetland, use of composted amended soils, and a sophisticated hybrid stormwater conveyance system that integrates underground pipes with open bioswales. A one-acre park will contain a rain garden irrigated entirely by rainfall and water from the upstream bioswales. Shamrock is one of 3 projects in King County's green building demonstration ordinance that allows modifications and waivers to some existing codes to enhance environmental benefits.

Danielson Grove

The Cottage Company's Danielson Grove project is a model pocket neighborhood



offering a mix of fourteen larger three-bedroom homes, and 1-bedroom and 2 bedroom cottages. Each home is on a private lot, arranged around common garden courtyards, and are certified under both the Built Green™ and Energy Star programs. The homes feature products such as high efficiency water heaters and dishwashers, and Energy Star qualified windows and insulation. Designed and co-developed by Ross Chapin Architects, this new community is being built under the City of Kirkland's Innovative Housing Demonstration Project.

High Point

The Seattle Housing Authority's High Point project is a model community for sustainable development. When complete, this urban infill project will add 1600 affordable and market rate homes to the West Seattle neighborhood. The 120 acre site plan integrates innovative storm water strategies such as pervious streets and sidewalks, recycling of existing structures and homes certified under the Built Green™ program.



6 Brown Bag: Cost Benefit Analysis of Green Building

November 16, 2005

12:00pm – 1:00pm

DDES Room B-35

Developers, builders and homeowners all share a common concern with new construction or renovation of a building: the creation of lasting value. This brownbag discussion will emphasize how to evaluate integrated design strategies that simultaneously reduce capital and operating costs while increasing project value.

Taken from an owner's perspective, this session will examine case studies that have successfully increased building value relative to comparable, conventionally designed product. We will look at innovative design approaches such as: native landscaping and tree preservation, higher density infill development, site layout, building layout and façade integration, and more integrative approaches to heating and cooling. Examining these more sustainable approaches in detail, we will determine if they contribute to either expense reduction or value creation.



Presenter:

Mark Huppert, *Principal, Catapult Community Developers*

Mr. Huppert works on both the practical application of sustainable development as well as consulting on larger policy issues of promoting sustainable commerce. The company often blends private and institutional sources of capital with public funds

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This material will be provided in alternative formats upon request for individuals with